Kinetics of Dehydrogenation and Dehydration of Isopropyl Alcohol and Dehydrogenation of Tetralin on Dysprosium Oxide, by A. A. Tolstopyatova and A. A. Balandin, 5 pp,

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 7, 1962, pp 1154-1163

CB

Sci

May 63

342, 729

A Study of the Hydrogenolysis of Xylitol. II. Effect of Promoters, by N. A. Vasyunina, A. A. Balandin, et al, 6 pp.
RUSSIAN, per, Kinetika i Kataliz, Vol IV, No 3, 1963, pp 443-449.
CB

Sci

Aug 64

265,442

Kinetics of Dehydrogenation and Dehydration of Isopropyl Alcohol and Dehydrogenation of Tetralin on Gadolinium Oxide, by A. A. Balandin and P'eng Pi-Hsiang. 6 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 8, 1962, pp. 1330-1335.

CB

Sci

Jun 63

342, 600

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

The Catalytic Properties of Iron Phosphate. Communication 1. Dehydration of Alcohols, by A. A. Balandin, A. I. Kukina, 7 pp.

RUSSIAN, per. Iz Ak Nauk SSSR, Otdel Khim Nauk, No 4, 1962, pp 574-581.

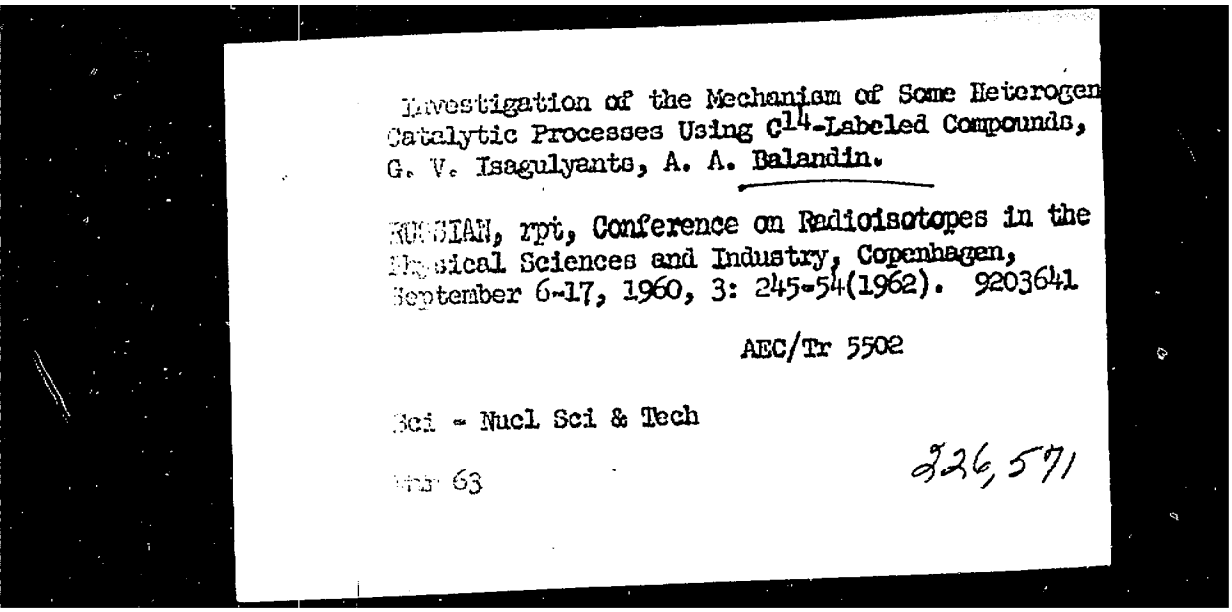
CB

Sci

Feb 63

233,265

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8



Investigation of the Mechanism of Some Heterogen
Catalytic Processes Using C^{14}-Labeled Compounds,
G. V. Isagulyants, A. A. Balandin.

RUSSIAN, rpt, Conference on Radioisotopes in the
Physical Sciences and Industry, Copenhagen,
September 6-17, 1960, 3: 245-54(1962). 9203641

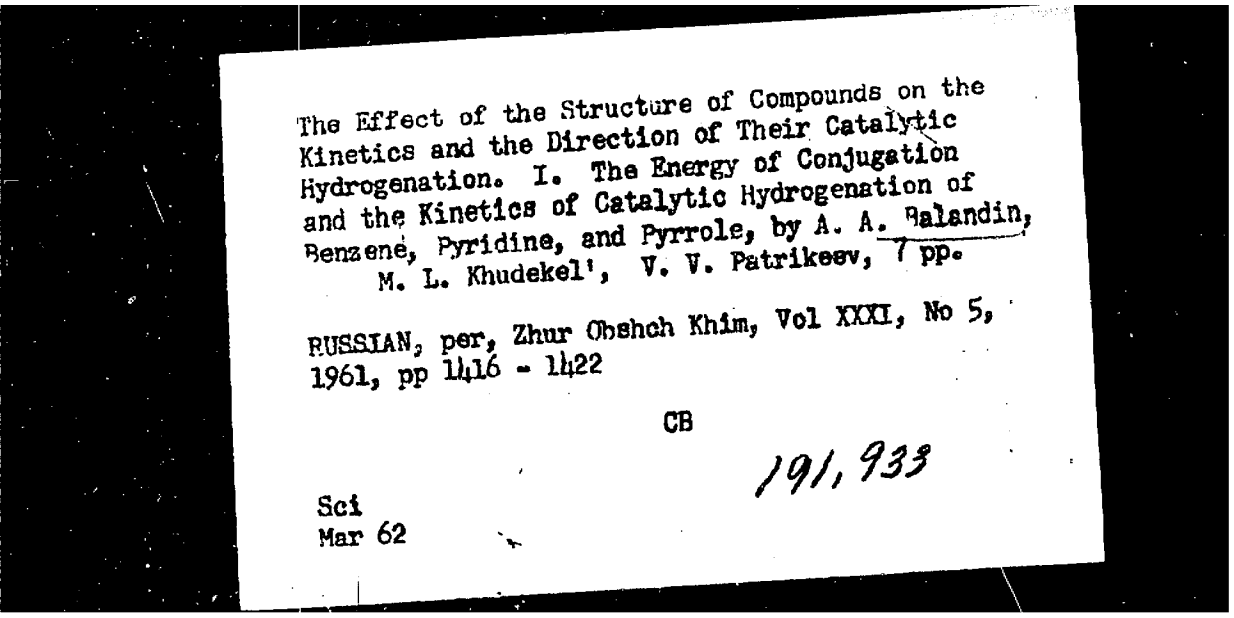
AEC/Tr 5502

Sci - Nucl Sci & Tech

63

826,571

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8



The Effect of the Structure of Compounds on the Kinetics and the Direction of Their Catalytic Hydrogenation. I. The Energy of Conjugation and the Kinetics of Catalytic Hydrogenation of Benzene, Pyridine, and Pyrrole, by A. A. Balandin, M. L. Khudekel', V. V. Patrikeev, 7 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXXI, No 5, 1961, pp 1416 - 1422

CB

191,933

Sci
Mar 62

Balandin, A. A.
STRUCTURAL CONFORMITY DURING CATALYSIS. [1962] 5p. 30 refs.
Order from OTS or SLA $1.10 62-16575

Trans. of Akad[emiya] Nauk SSSR. Doklady, 1960, v. 133 [no. 5] p. 1073-1076.

DESCRIPTORS: *Catalysts, *Crystal structure, Metallic crystals, Tables

A table of smallest interatomic distances for 4 types of crystalline lattices is compiled on the basis of the data of L. E. Sutton (Tables of Interatomic Distances and Configuration in Molecules and Ions, London, 1953).

(Chemistry--Physical, TT, v. 8, no. 9)

62-16575

1. Balandin, A. A.

C226611

Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Balandin, A. A., Eldus, Ya. T., and Zalogin, N. G.
ON THE FORMATION OF BUTADIENE AND ACETYLENE BY THE ACTION OF HIGH-FREQUENCY DISCHARGES ON ETHYLENE. [1961] 7p. (1 graph refs. omitted)
Order from OTS or SLA $1.10 61-20935

Trans. of Akademiya Nauk SSSR. Doklady, 1934, v. 4. [no. 1/2] p. 132-135.

DESCRIPTORS: Butadienes; Acetylenes, Electric discharges, High frequency, Ethylenes.

(Unannounced)

61-20935

I. Balandin, A. A.
II. Eldus, Ya. T.
III. Zalogin, N. G.

217166

Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Synthesis and Transformations of (Dihydroanthrylene) Naphthohydroquinone (Contribution to the Stereochemistry of Catalysis), by A. A. Balandin, et al, 3 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 12, 1961, pp 2189-2191.

CB

Sci
Sep 62

211,832

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Kinetics Of Dehydrogenation Of Alcohols by A.A. Balandin and S.L.Kiperman.

RUSSIAN, per, Zhurnal Fizicheskoi Khimii, Vol XXXI, No 1, 1957, pp 139-149.

CSIRO

Oct. 62

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Composition of the Butenes Fromed in the Catalytic Dehydration of 2-Butanol, by A. A. Balandin, E. I. Klabunovskiy, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 10, 1961, pp 1863-1870.

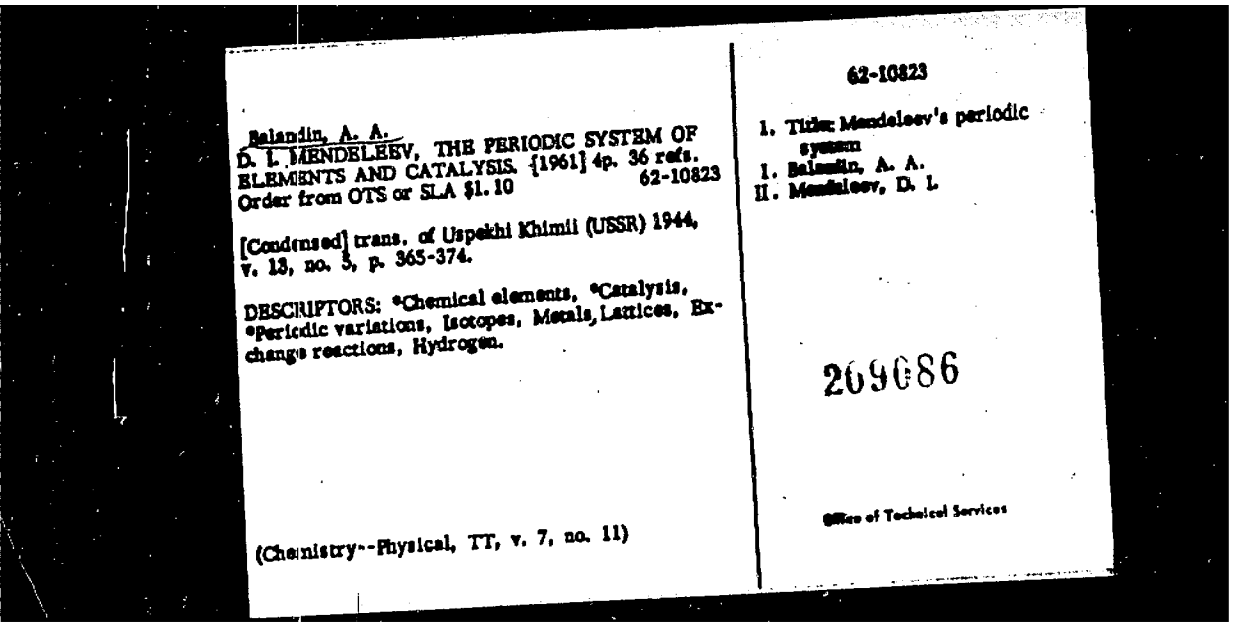
CB

Sci

Jul 62

205,119

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8



Balandin, A. A.
D. I. MENDELEEV, THE PERIODIC SYSTEM OF ELEMENTS AND CATALYSIS. [1961] 4p. 36 refs. Order from OTS or SLA $1.10 62-10823

[Condensed] trans. of Uspekhi Khimii (USSR) 1944, v. 13, no. 5, p. 365-374.

DESCRIPTORS: *Chemical elements, *Catalysis, *Periodic variations, Isotopes, Metals, Lattices, Exchange reactions, Hydrogen.

(Chemistry--Physical, TT, v. 7, no. 11)

62-10823

1. Title: Mendeleev's periodic system
I. Balandin, A. A.
II. Mendeleev, D. I.

269686

Office of Technical Services

Mechanism of Dehydrogenation of Cyclohexane on the Crystalline a-Oxide of Chromium, by A. A. Balandin, I. D. Rozhdestvenskaya, 6 pp.

RUSSIAn , per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 11, 1961, pp 1955-1962.

CB

Sci
Jul 62

205,117

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

The Catalytic Properties of Thorium Dioxide in the Dehydrogenation and Dehydration of Alcohols and in the Dehydrogenation of Cyclic Hydrocarbons, by A. A. Balandin, A. A. Tolstopyatova, et al, 12 pp.

RUSSIAN, per, Kinetika i Kataliz, Vol II, No 2, 1961, pp 273-284.

CB

Sci
Jun 62

200,099

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Kinetics of the Dehydrogenation and Dehydration of Ethyl and Isopropyl Alcohols on Yttrium Oxide, by A. A. Balandin, I. R. Koneko, et al, 7 pp.

RUSSIAN, per, Kinetika i Kataliz, Vol II, No 6, 1961, pp 900-906.

CB

Sci 210,459
Sep 62

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

4

TI ALYTIC DEMETHYLATION OF ISOMER C CR SOLS TO PHEN[illegible] BY STEAM, AU A. A. BALANDI[illegible] T. A. SOLOVOKHOTOVA, 4 PP.

RUSSIAN, PER, DOK AK NAUKSSSR, VOL CXLI, NO 4, 1961, PP 839-842.

CB

SCI

AUG 62 205,820

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

CATALYTIC DEHYDROGENATION OF ALKYLPHENOLS, BY A. A. BALANDIN, G. M MARUKYAN, 4 PP.

RUSSIAN, PE, DOK AK NAUK, SSSR, VOL CXLI, NO 3, 196L. PP 616-619.

CB

SCI

AUG 62 205,812

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Dehydrocondensation of Methane With the Formation of Carbonaceous Material, by A. P. Rudenko, A. A. Balandin, 4 pp.

RUSSIAN, per, Kinetika i Kataliz, Vol II, No 4, 1961, pp 529-533.

CB

Sci

Jun 62

200,447

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Balandin, A. A., Neiman, M. B., Bogdanova, O. K. and others.
INVESTIGATION ON THE DEHYDROGENATION OF BUTANE-BUTYLENE MIXTURES WITH THE HELP OF TAGGED ATOMS. [1963] 23p 23refs
Order from OTS, SLA, or ETC $2.60 TT-64-10701

Trans. of Problemy Kinetiki i Kataliza (USSR) [1957] v. 9. p. 45-60. (Abstract available)

DESCRIPTORS: *Butadienes, Synthesis (Chemistry), *Butanes, *Butenes, *Dehydrogenation, Hydrogenation, Reaction kinetics, *Labeled substances,

Under conditions of B. B. mixtures dehydrogenation the formation of butadiene occurs on the account of dehydrogenation of butylene; butane is practically not directly converted to butadiene. In other words, butylene is the predecessor of butadiene, whereby its desorption rate
(Chemistry--Physical, TT, v. 11, no. 9) (over)

TT-64-10701

I. Balandin, A. A.
II. Neiman, M. B.
III. Bogdanova, O. K.

Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Catalytic Properties of Dysprosium Oxide as Applied to Dehydrogenation and Dehydration of Alcohols and Dehydrogenation of Tetralin, by A. A. Balandin, A. A. Tolstopyatova, 6 pp.

RUSSIAN, per. Iz Ak. Nauk, Otdel Khim Nauk, No 6, 1962, pp 974-979.

CB

Sci

May 63

233,746

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

The Mechanism by Which Propene Forms During the Decomposition of Isopropyl Alcohol Over Vanadium Trioxide, by A. A. Balandin, G. V. Isagulyants, 3 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 9, 1961, pp 1549-1551.

CB

202,795

Sci

Jul 62

The Catalytic Behavior of Niobium Pentoxide During Vapor-Phase Amination of Ethyl Alcohol With Aniline, by A. A. Balandin, N. P. Sokolova, 5 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 9, 1961, pp 1543-1548.

CB

202,794

Sci
Jul 62

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

An Apparatus for Studying Processes of Heterogeneous Catalysis at High Temperature Using Radioactive Catalysts and Ionizing Radiations, by A. A. Balandin, V. I. Spitsyn, et al, 6 pp.

RUSSIAN, per, Kinetika i Kitalis, Vol II, No 4, 1961, pp 626-632.

CB

Sol

Jun 62

200,431

Effect of the Structure of Alkylaromatic Hydrocarbons on the Kinetics of Their Dehydrogenation, by O. K. Bogdanova, A. A. Balandin, 3 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXVIII, No 5, 1961, pp 1089-1092.

CB

Bel

May 62

195,805

Two Mechanisms of Carbon Formation in the Decomposition of n-Paraffins, Naphthenes, and Aromatic Hydrocarbons with Six and Seven Carbon Atoms on Silica Gel, by A. P. Rudenko, A. A. Balandin, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim, Nauk, No 6, 1960, pp 981-988.

CB

Sel 195,688
May 62

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Hydrogenation of α-Keto Acids Over Colloidal Palladium Catalyst, by E. I. Klabunovskiy, A. A. Balandin, 3 pp.

RUSSIAN, por, Dok Ak Nauk SSSR, Vol CXXXIX, No 2, 1961, pp 377-380.

CB

Sci

200,778

Jun 62

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Rhenium as a Hydrogenation Catalyst, by
A. A. Balandin, E. I. Karpeyiskaya, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXIX,
No 5, 1961, pp 1101-1104.

CB

Sci

200,800

Jun 62

"The Pentoxides of Niobium and Tantalum as Dehydration Catalysts," by A. A. Balandin, N. P. Sokolova, Yu. P. Simanov, 9 pp.

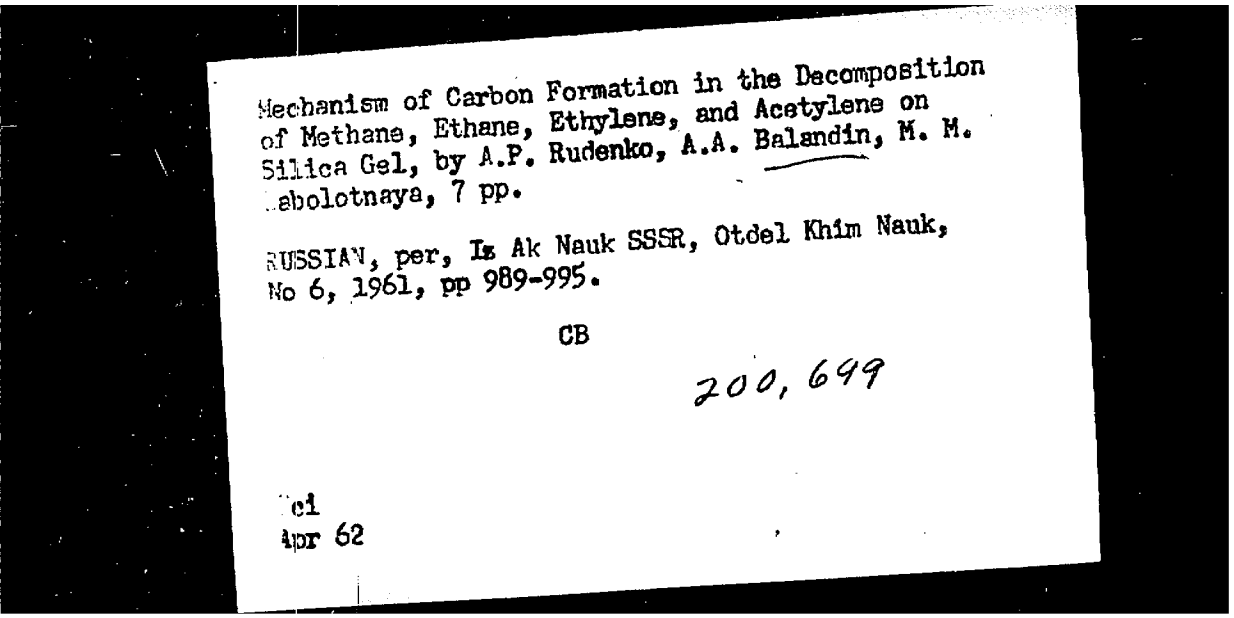
RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 3, 1961, PP 415-424.

CB

200,646

Sci
Apr 62

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8



Mechanism of Carbon Formation in the Decomposition of Methane, Ethane, Ethylene, and Acetylene on Silica Gel, by A.P. Rudenko, A.A. Balandin, M. M. Labolotnaya, 7 pp.

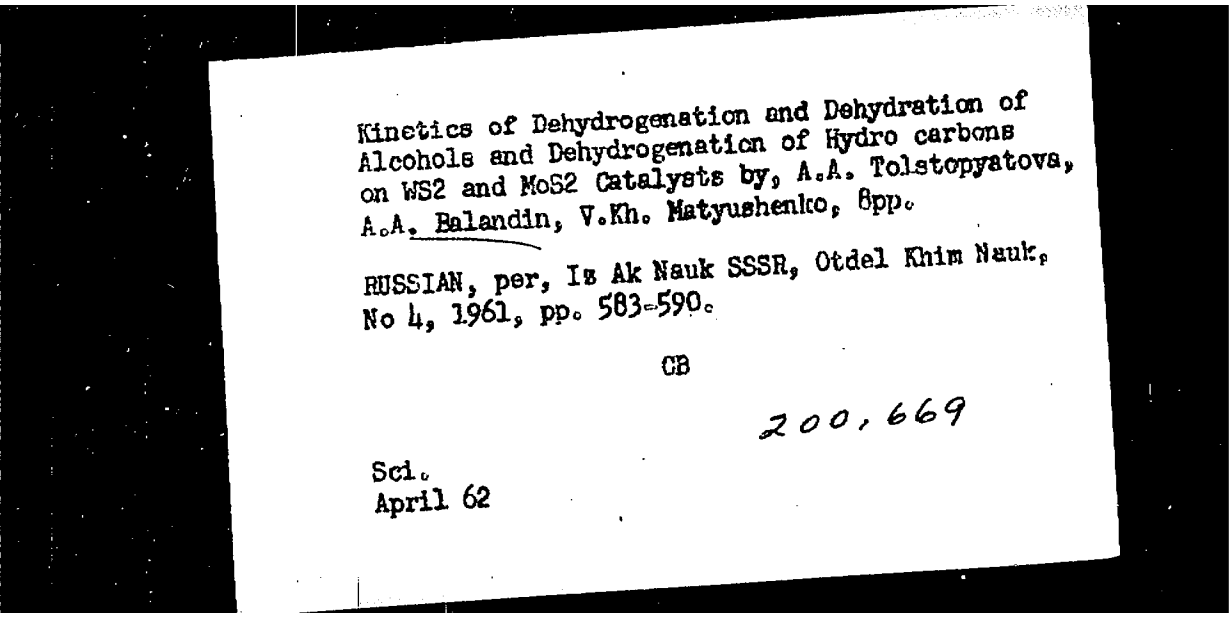
RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 6, 1961, pp 989-995.

CB

200,699

Ci
Apr 62

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8



Kinetics of Dehydrogenation and Dehydration of Alcohols and Dehydrogenation of Hydro carbons on WS2 and MoS2 Catalysts by, A.A. Tolstopyatova, A.A. Balandin, V.Kh. Matyushenko, 8pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 4, 1961, pp. 583-590.

CB

200,669

Sci.
April 62

On the Influence of the Radioactive Radiation of a Solid Body on Its Catalytic Properties by, A.A. Balandin, Vikt. I. Spitsyn, N.P. Dobrosel'skaya, 5pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 4, 1961, pp. 565-570.

CB

200, 666

Sci.
April 62

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Effect of the Structure of Compounds on the Kinetics and Direction of Their Catalytic Hydrogenation. II. Kinetics of Hydrogenation of Furan, Thiophene, and Ferrocene on Rhodium, by A. A. Balandin, M. L. Khidekel', 6 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXXI, No 6, 1961, pp 1876-1882.

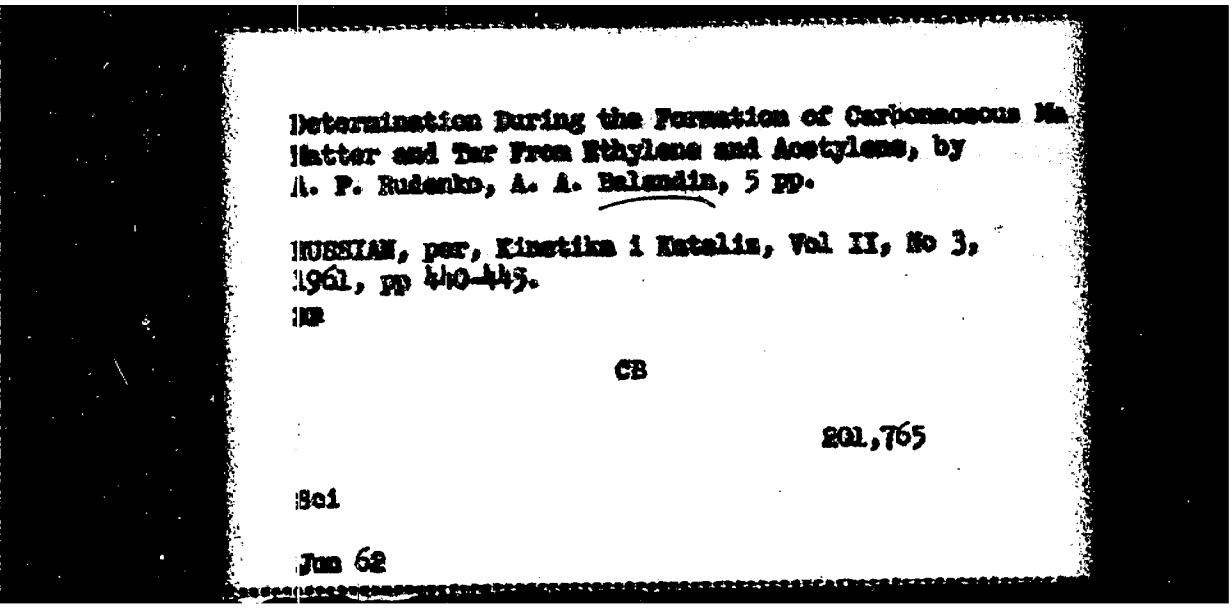
CB

Sci

Jun 62

201,881

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8



Determination During the Formation of Carbonaceous Ma
latter and Tar From Ethylene and Acetylene, by
A. P. Rudenko, A. A. Balandin, 5 pp.

RUSSIAN, per, Kinetika i Kataliz, Vol II, No 3,
1961, pp 440-445.

CB

201,765

Sci

Jun 62

"Regularities in the Catalytic Dehydrogenation of Primary and Secondary Alcohols," by O. K. Bogdanova, A. A. Balandin, A. P. Shcheglova, 5 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 3, 1961, pp 425-430.

CB

200,647

Sci
Apr 62

The Bonding Energies of the Atoms of Reacting Organic Substances With the Catalytically Active Centers of Titanium Dioxide, by A. A. Tolstopyatova, A. A. Balandin, 4 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim, Nauk, No 2, 1961, pp 214-217.

[illegible]

[illegible]

Jun 62 198,797

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Kinetic Determination of the Energies of Bonds Formed by J. C. and O Atoms with a V_2O_3 Catalyst, by

A. A. Balandin, N. P. Sokolova, pp 10,

RUSSIAN, Per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 3, 1960, pp 398-408.

CB

Sci
May 62

195,348

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Catalytic Alkylation of Isobutane with Ethylene Under Pressure at High Temperatures, by L. Kh. Freidlin, A. A. Balandin, pp 4

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 3, 1960, pp 4 409-412.

CB

Sci
May 62

195,349

Regularities on the Catalytic Properties of the Rare Earths, by A. A. Tolstopyatova, A. A. Balandin, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXVIII, No 6, 1961, pp 1365-1368.

CB

Sci

193,581

May 62

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Effect of Method of Preparation on the Catalytic Properties of Titanium Dioxide in Reactions of Ethyl and Isopropyl Alcohol and Cyclohexane, by A.A. Balandin, I.R. Koenko, A.A. Tolstopyatova, pp [illegible]
RUSSIAN, per, Iv Ak Nauk SSSR, Otdel Khim Nauk, No 1, 1961, pp 45-50.
CB

198,115

Sci
Apr 62

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

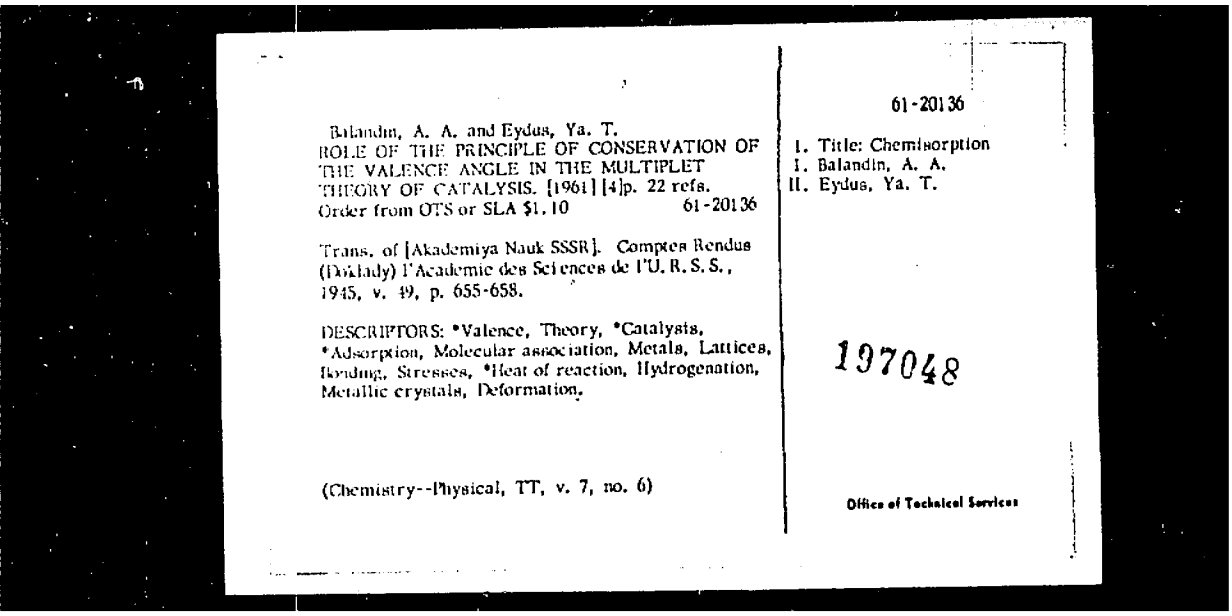
Kinetics of Dehydrogenation and Dehydration of Isopropyl Alcohol on Titanium Dioxide, by A. A. Tolstopyatova, I. R. Konenko, A. A. Balandin, 5 pp. RUSSIAN, Per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 1, 1961, pp 38-44.

CB

198,116

Sci
Apr 62

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8



Balandin, A. A. and Eydus, Ya. T.
ROLE OF THE PRINCIPLE OF CONSERVATION OF THE VALENCE ANGLE IN THE MULTIPLET THEORY OF CATALYSIS. [1961] [4]p. 22 refs.
Order from OTS or SLA $1.10 61-20136

Trans. of [Akademiya Nauk SSSR]. Comptes Rendus (Doklady) l'Academie des Sciences de l'U. R. S. S., 1945, v. 49, p. 655-658.

DESCRIPTORS: *Valence, Theory, *Catalysis, *Adsorption, Molecular association, Metals, Lattices, Binding, Stresses, *Heat of reaction, Hydrogenation, Metallic crystals, Deformation.

(Chemistry--Physical, TT, v. 7, no. 6)

61-20136

I. Title: Chemisorption
I. Balandin, A. A.
II. Eydus, Ya. T.

197048

Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

The Reciprocal Effect of Reacting Molecules Adsorbed on th the Surfaces of Dehydration Catalysts, by V. Ye. Vasserberg, A. A. Balandin, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXL, No 4, 1961, pp 859-862.

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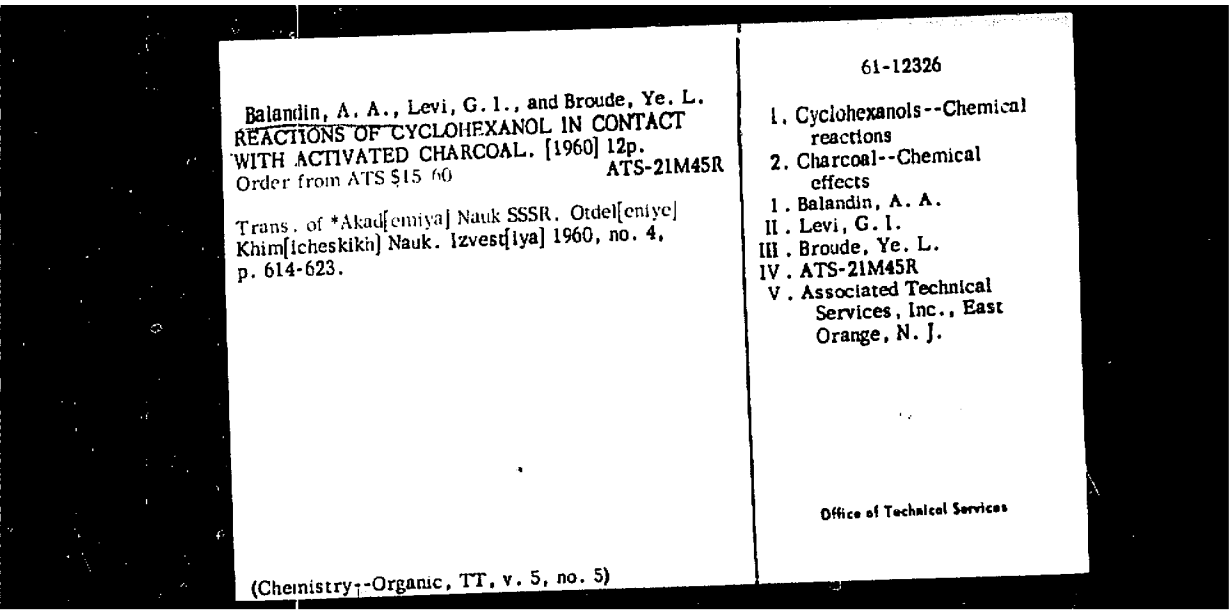
Sci.

196,516

May 62



Balandin, A. A., Levi, G. I., and Broude, Ye. L.
REACTIONS OF CYCLOHEXANOL IN CONTACT WITH ACTIVATED CHARCOAL. [1960] 12p.
Order from ATS $15.60 ATS-21M45R

Trans. of *Akad[emiya] Nauk SSSR. Otdel[eniye] Khim[icheskikh] Nauk. Izvest[iya] 1960, no. 4, p. 614-623.

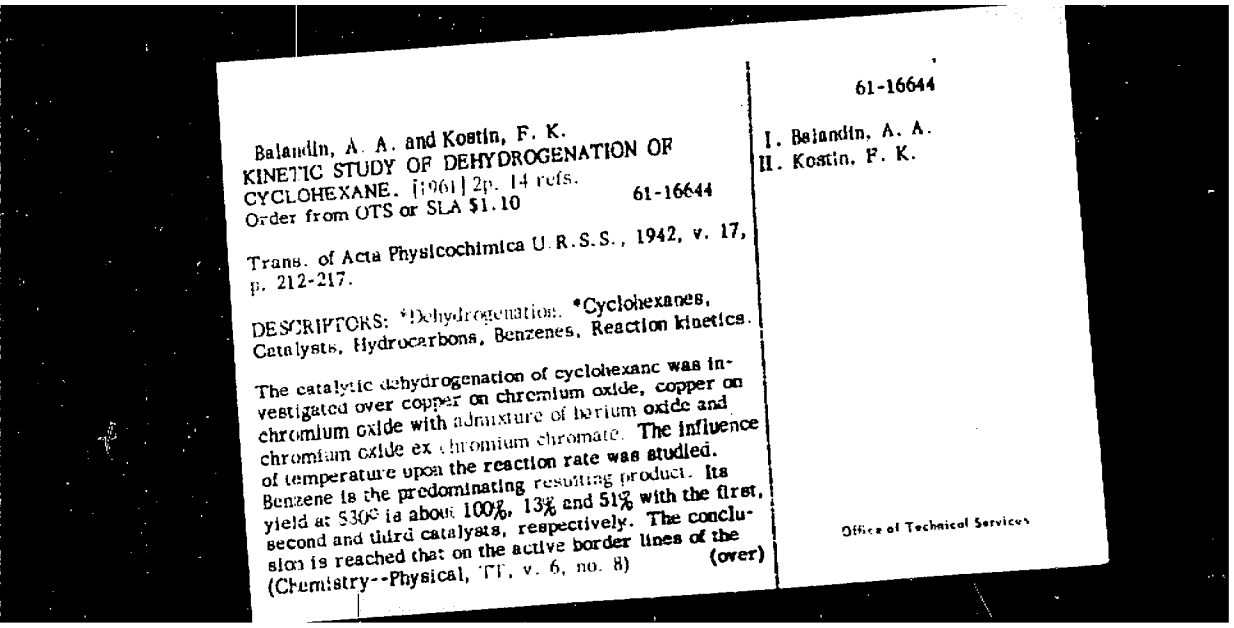
(Chemistry-Organic, TT, v. 5, no. 5)

61-12326

1. Cyclohexanols--Chemical reactions
2. Charcoal--Chemical effects
I. Balandin, A. A.
II. Levi, G. I.
III. Broude, Ye. L.
IV. ATS-21M45R
V. Associated Technical Services, Inc., East Orange, N. J.

Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8



Balandin, A. A. and Kostin, F. K.
KINETIC STUDY OF DEHYDROGENATION OF CYCLOHEXANE. [1961] 2p. 14 refs.
Order from OTS or SLA $1.10 61-16644

Trans. of Acta Physicochimica U.R.S.S., 1942, v. 17, p. 212-217.

DESCRIPTORS: *Dehydrogenation, *Cyclohexanes, Catalysts, Hydrocarbons, Benzenes, Reaction kinetics.

The catalytic dehydrogenation of cyclohexane was investigated over copper on chromium oxide, copper on chromium oxide with admixture of barium oxide and chromium oxide ex chromium chromate. The influence of temperature upon the reaction rate was studied. Benzene is the predominating resulting product. Its yield at 330° is about 100%, 13% and 51% with the first, second and third catalysts, respectively. The conclusion is reached that on the active border lines of the (over)
(Chemistry--Physical, TT, v. 6, no. 8)

61-16644

I. Balandin, A. A.
II. Kostin, F. K.

Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Balandin, A. A.
CATALYSIS AND THE CHANGE OF MOLECULAR FORM. [1961] 34p. 132 refs.
Order from OTS or SLA $3.60 61-16915

Trans. of Uspekhi Khimii (USSR) 1941, v. 10, p. 262-293.

DESCRIPTORS: *Catalysis, Molecular structure, Hydrocarbons, Dehydrogenation, Hydrogenation, *Molecular isomerism, *Benzenes.

An account of the researches in the application of catalysis to organic chemistry pursued by N. D. Zelinskii during 57 years up to 1941 is given, including investigations of some of his students. The investigations of his school are reviewed pertaining to the phenomenon of selective dehydrogenation leading to formation of aromatics from naphthenes at 300°C, but leaving unaffected those naphthenes which cannot be converted into (Chemistry--Organic, TT, v. 6, no. 8) (over)

61-16915

1. Title: Naphthene
I. Balandin, A. A.

Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Slowing Down of Surface Reactions on Catalysts and the Mobility of Adsorbed Molecules, by V. Ye. Vasserberg, A. A. Balandin, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXL, No 5, 1961, pp 1110-1113.

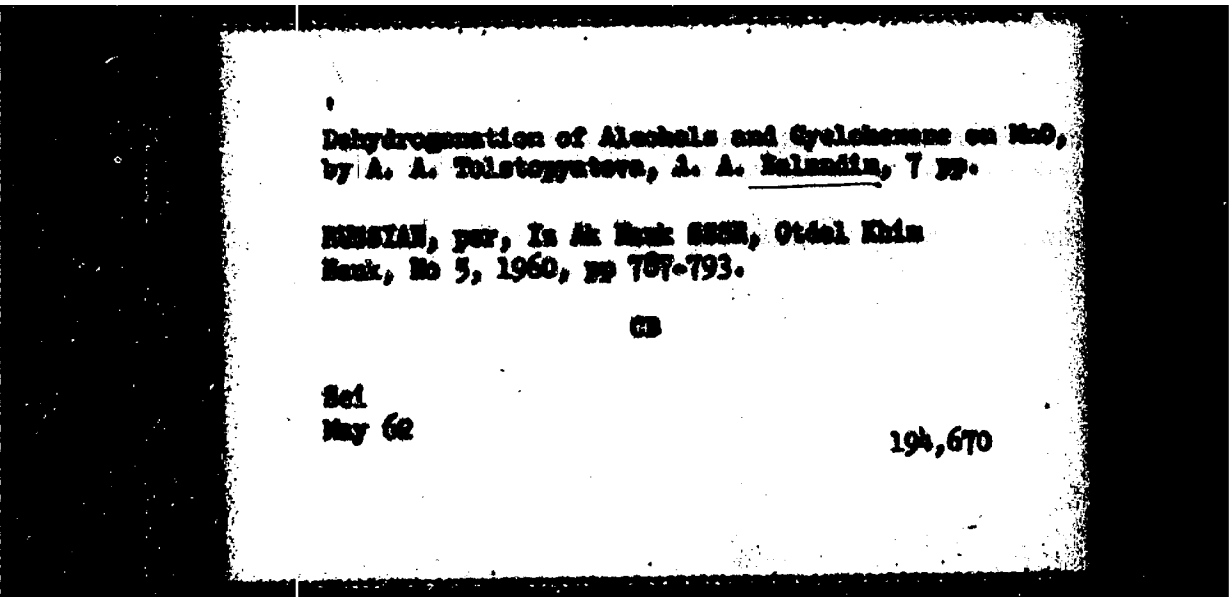
CB

Sci

196,522

May 62

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8



Dehydrogenation of Alcohols and Cyclohexane on MnO, by A. A. Tolstogyatova, A. A. Balandin, 7 pp.

RUSSIAN, pur, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 5, 1960, pp 787-793.

GB

Sci
May 62

194,670

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Investigation of Catalytic Conversions of Isopropanol and Cyclic Hydrocarbons of Titanium Dioxide (Anatase) by Means of a Differential Thermocouple, by A. A. Balandin, A. A. Tolstopyatova, 6 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 12, 1960, pp. 2096-2102.

CB

Sci
May 62

194,490

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

The Formation of Carbon Dendrites in the Decomposition of Alcohols on Nickel, by A. A. Balandin, A. P. Rudenko, G. Stegner, 8pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 5, 1961, pp 862-770

CB

Soi

189,009

Mar 62

Determination of Relative Adsorption Coefficients by the Isotope Dilution Method, by G. V. Isagulyants, A. A. Balandin, E. I. Popov, 3 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXIX, No 1, 1961, pp 139-141.

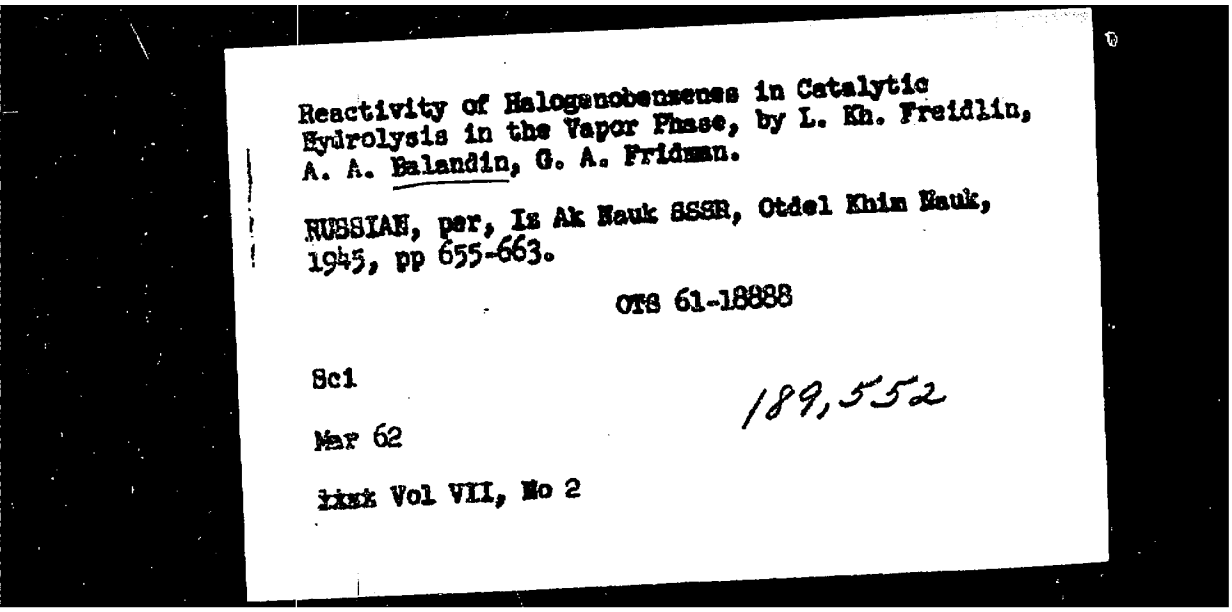
CB

190,303

Sci

Apr 62

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8



Reactivity of Halogenobenzenes in Catalytic Hydrolysis in the Vapor Phase, by L. Kh. Freidlin, A. A. Balandin, G. A. Fridman.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, 1945, pp 655-663.

OTS 61-18888

Sci

189,552

Mar 62

~~Izsk~~ Vol VII, No 2

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Catalytic Conversions of Some Alkyl Halides, by A. A. Balandin, A. I. Kukina, I. P. Beryshnikova, 6 pp.

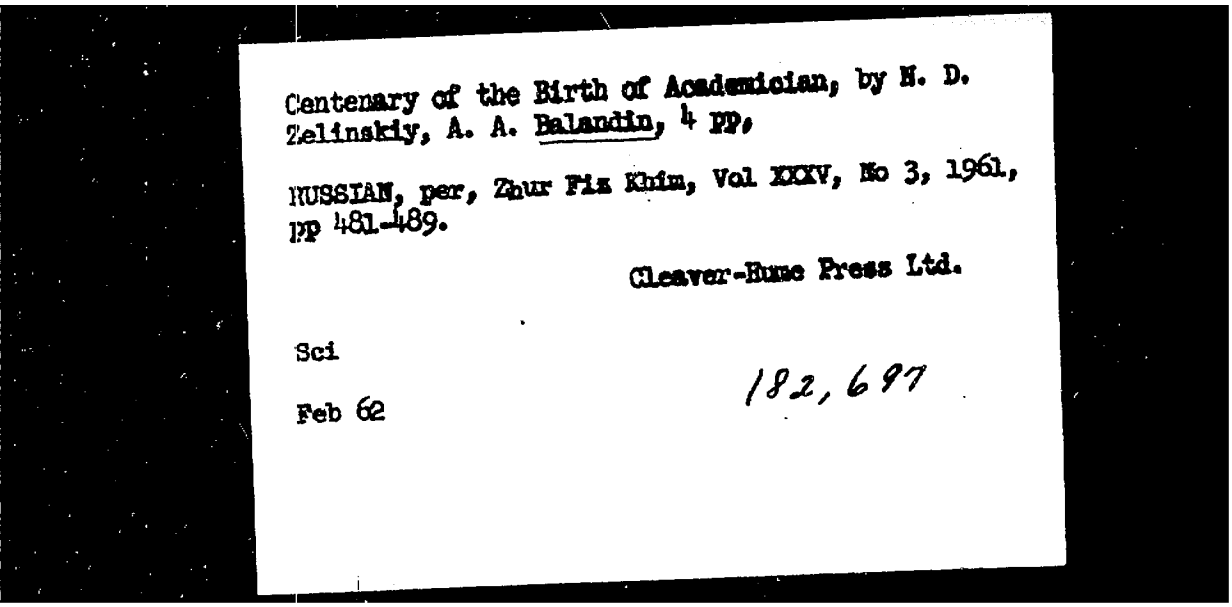
RUSSIAN, per. Iz Ak Nauk SSSR, Otdel Khim Nauk, No 7, 1960, pp 1162-1169.

CB

165,862

Soi
Sop 61

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8



Centenary of the Birth of Academician, by N. D. Zelinskiy, A. A. Balandin, 4 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXXV, No 3, 1961, pp 481-489.

Cleaver-Hume Press Ltd.

Sci

Feb 62

182,697

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Kinetics of the Dehydrogenation of Alcohols on Copper, by A. A. Balandin, P. Teteni, 6 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXXV, No 1, 1961, pp 62-71.

Cleaver-Hume Press

Sci

177,927

Dec 61

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Balandin, A. A., Marushkin, M. N., and Afanas'ev, M. M.
CONTACT DECOMPOSITION OF HYDROCARBONS: CONVERSION OF NORMAL-BUTANE UNDER THE ACTION OF CARBON DIOXIDE OVER NICKEL-ALUMINA CATALYSTS. [1961] 4p. 25 refs.
Order from OTS or SLA $1.10 61-16643

Trans. of Acta Physicochimica U. R. S. S., 1942, v. 17, p. 83-92.

DESCRIPTORS: *Hydrocarbons, *Butanes, Decomposition, *Carbon dioxide, *Alumina-nickel catalysts, Catalysis, Chemical reactions.

The conversion of n-butane and carbon dioxide over nickel-alumina is investigated experimentally. A scheme of the reaction mechanism is given which accounts for a successive shortening of the carbon chain and explains the formation of carbon, being in accord-
(Chemistry--Organic, TT, v. 6, no. 10) (over)

61-16643

I. Balandin, A. A.
II. Marushkin, M. N.
III. Afanas'ev, M. M.
IV. Title: Conversion...

Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Balandin, A. A. and Marukyan, G. M.
PRODUCTION OF α-METHYLSTYRENE BY CATALYTIC DEHYRDOGENATION OF ISOPROPYL-BENZENE.
[1961] 3p. 2 refs.
Order from OTS or SLA $1.10 61-18349

Trans. of [Akademiya Nauk SSSR]. Comptes Rendus (Doklady) de l'Academie des Sciences de l'U. R. S. S., 1945, v. 48, p. 482-483.

DESCRIPTORS: *Styrenes, *Methyl radicals, Synthesis, *Cumenes, Dehydrogenation, *Chromium compounds, *Oxides, Catalysts, Catalysis, Propyl radicals, Benzenes.

Catalytic dehydrogenation of isopropylbenzene to α-methylstyrene on catalysts such as promoted chromium oxide occurs at a higher rate than of ethylbenzene to styrene under comparable conditions. The yield
(Chemistry--Organic, TT, v. 6, no. 10) (over)

61-18349

I. Balandin, A. A.
II. Marukyan, G. M.

Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Balandin, A. A.
CATALYTIC DEHYDROGENATION OF HYDROCARBONS AND ITS APPLICATION TO SYNTHESIS OF RUBBER FROM GASES. [1961] 24p. 90 refs.
Order from OTS or SLA $2.60 61-18058

Trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk. Izvestiya, 1942, no. 1, p. 21-44.

DESCRIPTORS: *Hydrocarbons, *Synthetic rubber, *Dehydrogenation, *Catalysts, Benzenes, Butanes, Butenes, Synthesis, Butadienes, Styrenes, Ethyl radicals.

The catalytic dehydrogenation of hydrocarbons on chromic oxide is discussed from the point of view of the author's multiplet theory and examples of dehydrogenation of butane, butene and ethylbenzene given indicating the significance and the applicability of this method for commercial synthesis of butadiene and styrene. (Author)

61-18058

1. Balandin, A. A.

(Chemistry--Organic, TT, v. 6, no. 10)
Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Balandin, A. A., Marukyan, G. M., and Seimovich, R. G.
CATALYTIC DEHYDROGENATION OF p-CYMENE.
[1961] 4p. 15 refs.
Order from OTS or SLA $1.10 61-16920

Trans. of Akademiya Nauk SSSR. Comptes Rendus (Doklady) de l'Academie des Sciences de l'U. R. S. S., 1943, v. 41, p. 71-73.

DESCRIPTORS: *Cymenes, Dehydrogenation, Catalysis.

Introduction of two methyl groups into the molecule of ethylbenzene, one attached to the ring and the other placed in the side chain in α-position, facilitates dehydrogenation. (Author)

(Chemistry--Organic, TT, v. 6, no. 7)

61-16920

I. Balandin, A. A.
II. Marukyan, G. M.
III. Seimovich, R. G.

Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Balandin, A. A. and Marushkin, M. N.
FORMATION OF OLEFINS FROM HIGHER PARAFFINS. [1961] 5p. 9 refs.
Order from OTS or SLA $1.10 61-16928

Trans. of Akademiya Nauk SSSR. Comptes Rendus (Doklady) de l'Academie des Sciences de l'U.R.S.S., 1943, v. 40, p. 254-256.

DESCRIPTORS: *Ethylenes, Synthesis, Hydrocarbons, Decomposition, Waxes, Catalysis.

In a preliminary study catalytic cracking of paraffin wax in the presence of a mixed chromium catalyst gave results showing that at 450-500° dehydrogenation to olefins definitely predominates over other reactions of paraffin wax hydrocarbons under the conditions used. (Author)

(Chemistry--Organic, TT, v. 6, no. 7)

61-16928

I. Balandin, A. A.
II. Marushkin, M. N.

Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Balandin, A. A., Zelinskii, N. D. and others.
PREPARATION OF 1, 3-BUTADIENE BY CATALYTIC DEHYDROGENATION OF 1-BUTENE. [1961] 9p.
15 refs.
Order from OTS or SLA $1.10 61-18011

Trans. of Zhurnal Prikladnoi Khimii (USSR) 1941, v. 14, p. 435-445.

DESCRIPTORS: *Butadienes, Synthesis, *Butenes, Dehydrogenation, Catalysis.

The catalytic dehydrogenation of 1-butene to 1, 3-butadiene was investigated in the presence of carbon dioxide or nitrogen. The conditions were established under which butadiene is formed in yields of up to 34% on the passed, or 77% on the decomposed, butene. The reaction is carried out under atmospheric pressure, at 600°, with a contact period of 0.3 seconds and dilution of butene with carbon dioxide in the ratio of 1:7.5 by

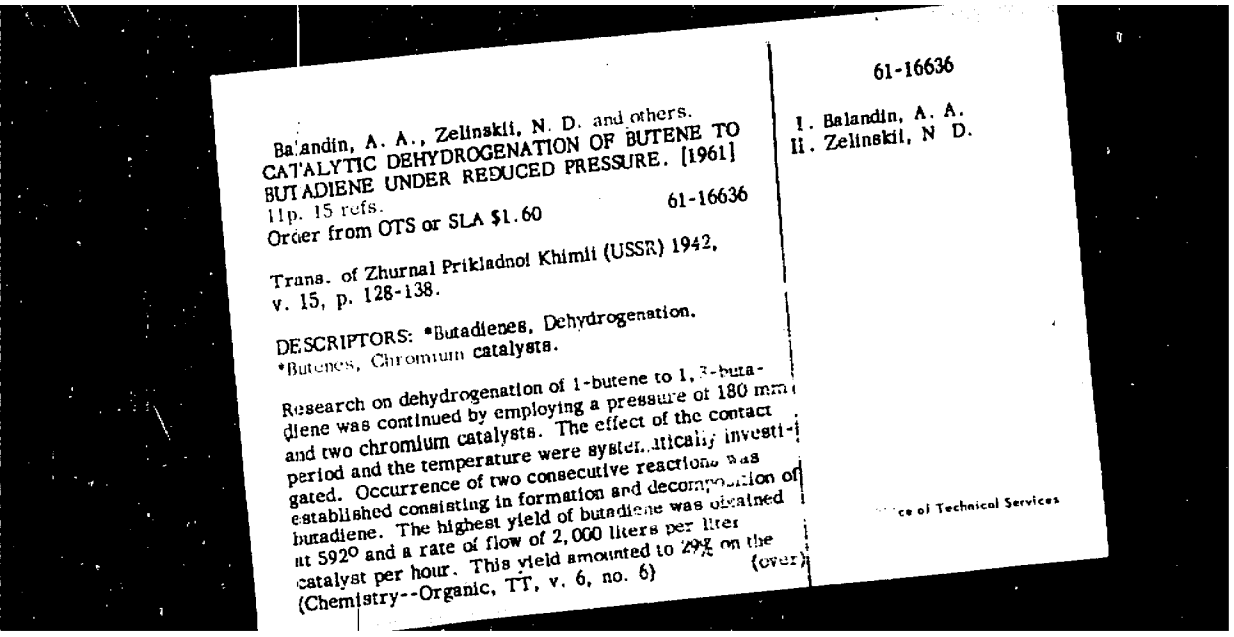
(Chemistry--Organic, TT, v. 6, no. 7) (over)

61-18011

I. Balandin, A. A.
II. Zelinskii, N. D.

Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8



Balandin, A. A., Zelinskii, N. D. and others.
CATALYTIC DEHYDROGENATION OF BUTENE TO BUTADIENE UNDER REDUCED PRESSURE. [1961]
11p. 15 refs.
Order from OTS or SLA $1.60 61-16636

Trans. of Zhurnal Prikladnoi Khimii (USSR) 1942, v. 15, p. 128-138.

DESCRIPTORS: *Butadienes, Dehydrogenation, *Butenes, Chromium catalysts.

Research on dehydrogenation of 1-butene to 1,3-butadiene was continued by employing a pressure of 180 mm and two chromium catalysts. The effect of the contact period and the temperature were systematically investigated. Occurrence of two consecutive reactions was established consisting in formation and decomposition of butadiene. The highest yield of butadiene was obtained at 592° and a rate of flow of 2,000 liters per liter catalyst per hour. This yield amounted to 29% on the (over)

(Chemistry--Organic, TT, v. 6, no. 6)

61-16636

I. Balandin, A. A.
II. Zelinskii, N D.

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APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Balandin, A. A. and Kotelkov, N. Z.
DEHYDROGENATION AND DECOMPOSITION OF CYCLOHEXANE AT HIGH TEMPERATURES OVER METALLIC CATALYSTS. [1961] 14p. 19 refs.
Order from OTS or SLA $1.60 61-16919

Trans. of Zhurnal Prikladnoi Khimii (USSR) 1942, v. 15, p. 139-150.

DESCRIPTORS: *Cyclohexanes, Dehydrogenation, Decomposition, Catalysts.

Catalytic dehydrogenation and decomposition of cyclohexane was investigated at 300-600° over electrically heated coils of nichrome, platinized nichrome, palladized nichrome, iron and chromium-plated iron, using a specially constructed apparatus distinguished by a number of advantages over the conventional catalytic equipment. Kinetic data for these reactions were obtained and a hypothesis of dendritic deposition of carbon, based on the multiplet theory of catalysis, is suggested as an explanation of the data obtained. (Author)

61-16919

I. Balandin, A. A.
II. Kotelkov, N. Z.

Office of Technical Services
(Chemistry--Organic, TT, v. 6, no. 7)

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Kinetics of the Dehydration of Alcohols by Tungsten Oxide and the Energy of the Carbon, Hydrogen and Oxygen Bonds with the Catalyst, by A. A. Tolstopyat A. A. Balandin, V. Stshizhevskiy, 8 pp.

RUSSIAN, per, Kinetika i Kataliz, Vol I, No 4, 1960, pp 558-565.

CB

172, 766

Sci

Oct 61

The Activity of Cadmium Oxide as a Catalyst for Hydrocarbon Dehydrogenation, by A. A. Balandin, V. A. Feraponton, A. A. Tolstopyatova, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 10, 1960, pp 1751-1758.

CB

Sci 172, 225

Oct 61

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Determination of the Energy of the Bond of the Reacting Atoms of Organic Molecules with the Surface of MnO Catalsyt, by A.A. Tolstopyatova, A. A. Balandin, V. Kh. Mayushenko, 4 pp

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 8, 1960, pp 1333-1336.

CB

Sc1

169,403

Sep 61

AEC-tr-4497(p.59-65) Uncl.

STUDY OF THE MECHANISM OF CONSECUTIVE REACTIONS OF THE BUTANE-BUTYLENE-DIVINYL SYSTEM EMPLOYING RADIOACTIVE CARBON C^{14}. A. A. Balandin, O. K. Bogdanova, G. V. Isagulyants, M. B. Neiman, and E. I. Popov. Translated from Trudy Vsesoyuz. Nauch.-Tekh. Konf. po Primenen. Radioaktiv. i Stabil. Izotopov i Izluchenii v Narod. Khoz. i Nauke, Moscow, 1957 (1958). Izotopy i Izlucheniya v Khim., p.52-7.

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APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Kinetic Determination of the Energies of the Bonds Between the Reacting Atoms of Organic Molecules and the Surgface of Blue Molybdenum Oxide, by A. A. Tolstopyatova, A. A. Balandin, et al, 5 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 3, 1963, pp 423-428.

CB

Sci

Apr 64

255,069.

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Catalytic Dehydrogenation of Ethylbenzene to Styrene on Cadmium Oxide in the Presence of Water Vapor, by V. A. Ferapontov, A. A. Balandin, et al, 8 pp.

RUSSIAN; per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 3, 1963, pp 414-422.

CB

Sci

Apr 64

255,068

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Selective Hydrogenation of Butynediol into Butenediol on a Nickel Skeleton Catalyst, by L. Kh. Freidlin, A. A. Balandin, I. F. Shukova, 8 pp.

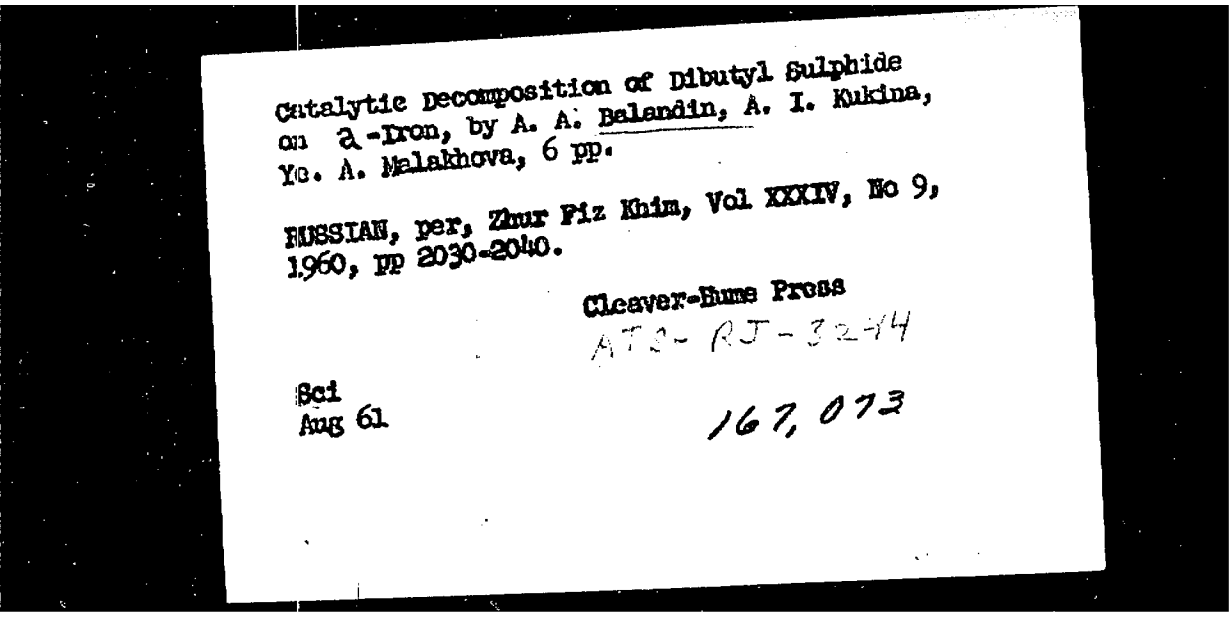
RUSSIAN, per, Kinetika i Kataliz, Vol I, No 3, 1960, pp 447-454.

CB

168,553

Sci
Sep 61

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8



Catalytic Decomposition of Dibutyl Sulphide on γ-Iron, by A. A. Belandin, A. I. Kukina, Ye. A. Malakhova, 6 pp.

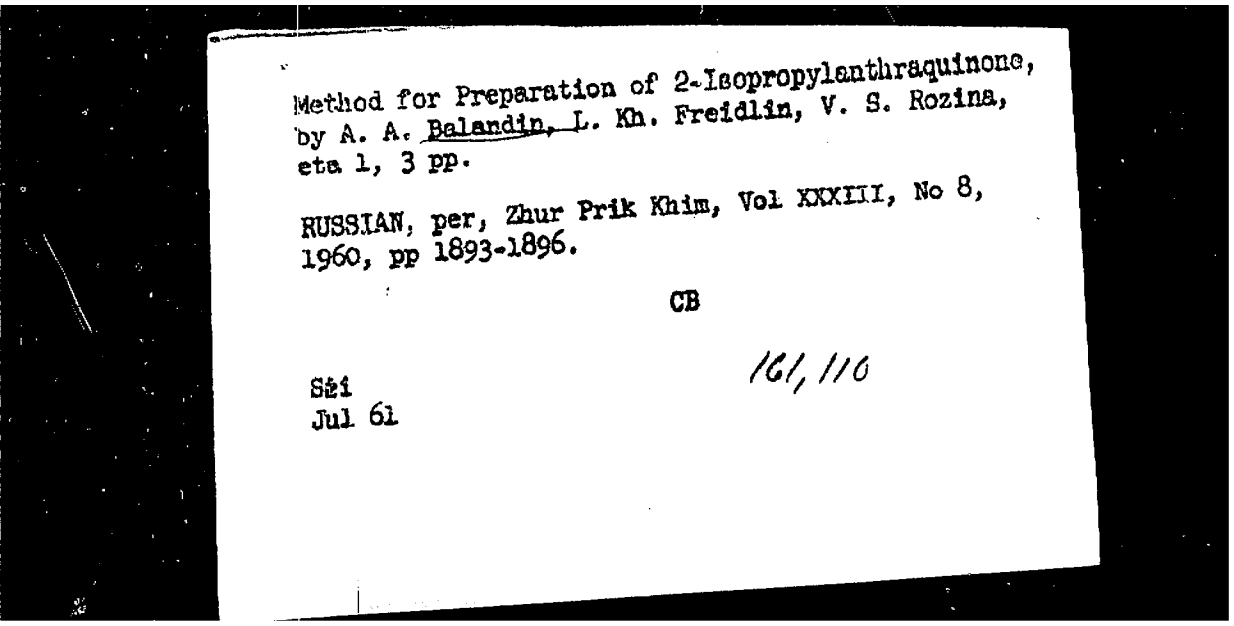
RUSSIAN, per, Zhur Fiz Khim, Vol XXXIV, No 9, 1960, pp 2030-2040.

Cleaver-Hume Press

ATS- RJ-3244

Sci
Aug 61

167,073



Method for Preparation of 2-Isopropylanthraquinone, by A. A. Balandin, L. Kh. Freidlin, V. S. Rozina, etc 1, 3 pp.

RUSSIAN, per, Zhur Prik Khim, Vol XXXIII, No 8, 1960, pp 1893-1896.

CB

161, 110

Sēi
Jul 61

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Kinetics of the Catalytic Reduction of Peroxides and Hydroperoxides, III. Hydrogenation of 3-Methyl-1-butyne-3-Hydroperoxide and p-Nitrobenzoyl Peroxide, by A. A. Balandin, L. Kh. Freidlin, N. V. Nikiforova, 8 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 7, 1959, pp 1177-1185.

CB

Sci

Jul 61

162,430

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Adsorption and Catalysis. III. Stepwise Hydrogenation of Cyclopentadiene, by A. A. Balandin, M. L. Khidekel' and V. V. Patrikeyev, 8 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 7, 1959, pp 1169-1176.

CB

Sci

162429

Effect of the Treatment of Chromic Oxide With Hydrogen and Oxygen on Its Catalytic Activity in Dehydrogenation and Dehydration Reactions, by A. A. Tolstopyatova, A. A. Balandin, K. A. Dulitskaya, 8 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 10, 1959, pp 1716-1724.

CB

Sci

157,970

Jun 61

Adsorption and Catalysis. Communication 2. Reaction Rate, Surface Potential, and Adsorption Relationships in Hydrogenation, by A. A. Balandin, M. L. Khidekel', V. V. Patrikeyev, 5 pp.

RUSSIAN, per; Iz Ak Nauk SSSR, Otdel Khim Nauk, No 6, 1959, pp 999-1004.

CB

157, 901

Sci
Jun 61

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

The Structure of Molecules and Reactivity in Catalysis
by A. A. Balandin, 10 pp.

RUSSIAN, per, Kinetika i Kataliz, Vol I, No 1,
1960, pp 5-14.

CB

Sci
Jul 61

158, 147

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Effect of the Nature of Metals on Their Catalytic Activity, by A. A. Balandin, P. Tetenl, 5 pp.

per,
RUSSIAN,/Doklady Akad Nauk SSSR, Vol CXXXII, No 3, 1960, pp 577-580. 9077078

ATS

Sci - Chem
Jun 61

154815

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Development of a Unified Theory of Catalysis.
Structural and Energetic Factors* by
A. A. Balandin, 14 pp.

RUSSIAN, per, Khim Nauka i Prom, Vol IV, No 5,
1959, pp 655-661. 9077080

ATS
RJ 2527

Sci - Chem
Jun 61

154814

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

"Radioactive Catalysts" Dehydration of Cyclohexanol on Magnesium and Sodium Sulfates, by A. A. Balandin, V. I. Spitsyn, N. P. Dobroselskaya, I. E. Mikhailenko, 8 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXI, 1958, pp 495-498.

AEC Tr-4520

Sci
Jun 61

155,949

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Selective Hydrogenation of Adiponitrile Over a Cobalt Boride Catalyst, by B. D. Polkovnikov, L. Kh. Freidlin, K. A. Balandin, 3 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 8, 959, pp 1488-1489.

CB

Sel -
May 61

152,777

Catalytic Properties of Rhenium. Communication 2. Dehydrogenation of Cyclohexane, by A. A. Balandin, E. I. Karpeiskaya, A. A. Tolstopyatova, 6 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 9, 1959, pp 1529-1535.

CB

Sci -
May 61

152,790

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Balandin, A. F., Bogdanova, O. K. and others.
CATALYTIC DEHYDROGENATION OF THE TECHNICAL BUTANE-BUTENE FRACTION OF CRACKED GAS. [1961] 4p. 3 refs.
Order from OTS or SLA $1.10 61-20144

Trans. of Zhurnal Prikladnoi Khimii (USSR) 1945, v. 18, p. 609-611.

DESCRIPTORS: *Butanes, *Butenes, Dehydrogenation, Catalysts, Catalysis, *Butadienes, Synthesis, *Hydrocarbons, Gases.

On the example of catalytic dehydrogenation of a plant-produced butane-butene fraction of cracking gases it was shown that the method of preparation of butadiene (by dehydrogenation of pure butane and 1-butene) previously described by the authors is totally applicable to gases from oil cracking. (Author)
(Chemistry--Organic, TT, v. 6, no. 11)

61-20144

I. Balandin, A. A.
II. Bogdanova, O. K.

Office of Technical Services

Balandin, A. A., Bogdanova, O. K., and Shcheglova, A. P.
THE KINETICS OF DEHYDROGENATION OF BUTYLENE ON A CHROMIUM CATALYST. [1961] 21p.
Order from ATS $29.95 ATS-00N54R

Trans. of Akad[emiya] Nauk SSSR. Otdel[enie] Khim[icheskikh] Nauk. Izvest[iya] 1946, no. 5, p. 497-513.

DESCRIPTORS: *Butenes, *Dehydrogenation, *Chromium catalysts, Catalysts.

(Chemistry--Organic, TT, v. 6, no. 11)

61-25549

I. Balandin, A. A.
II. Bogdanova, O. K.
III. Shcheglova, A. P.
IV. ATS-00N54R
V. Associated Technical Services, Inc., East Orange, N. J.

Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Balandin, A. A. and Marukyan, G. M.
CATALYTIC PREPARATION OF α-METHYL-STYRENE. [1961] 10p. 12 refs.
Order from OTS or SLA $1.10 61-20159

Trans. of Zhurnal Prikladnoi Khimii (USSR) 1946, v. 19, p. 207-216.

DESCRIPTORS: *Styrenes, Methyl radicals, Synthesis, *Cumenes, Dehydrogenation, Copper, Chromium, Catalysts, Catalysis.

A study of catalytic dehydrogenation of isopropylbenzene to α-methylstyrene showed that this method may be recommended for testing on a commerical scale. α-Methylstyrene is distinguished by a number of advantages over styrene. Its preparation is simpler and the quality of synthetic rubber obtainable by its copolymerization with 1, 3-butadiene is apparently higher than that of copolymers of the latter with styrene. De-
(Chemistry--Organic, TT, v. 6, no. 11) (over)

61-20159

I. Balandin, A. A.
II. Marukyan, G. M.

Office of Technical Services

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Effect of the Structure of an Alcohol Molecule on the Kinetics of Its Dehydrogenation. Communication 4. Catalytic Dehydrogenation of Benzyl Alcohol, by O. K. Bogdanova, A. A. Balandin, A. P. Shcheglova, 6 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 8, 1959, pp 1372-1377.

CB

Sci -
May 61

152, 757

Catalytic Properties of Rhenium. Communication 1. Rhenium as a Dehydrogenation Catalyst, by A. A. Balandin, E. I. Karpeiskaya, A. A. Tolstopyatova, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 8, 1959, pp 1365-1371.

CB

Sci -
May 61

152,755

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Mechanism of Carbon Formation in the Decomposition of Ethanol Over a Copper-Silica Gel Catalyst, by G. Stegner, A. A. Balandin, A. P. Rudenko, 8 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 11, 1959, pp 1896-1904.

CB

Sci -
May 61

153,051

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Kinetics of the Vapor Phase Transformation of Piperidine Over a Nickel Catalyst, by A. A. Balandin, L. I. Sovalova, T. A. Slovokhotova, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 11 1959, pp 1882-1888.

CB

Sci -
May 61

153, 048

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Some Catalytic Properties of Molybdenum Trioxide and Dioxide, by A. A. Balandin, I. D. Rozhdestvenskay
6 pp.

RUSSIAN, pr, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 11, 1959, pp 1889-1895.

CB

153,050

Selectivity of Catalysts. Communication 3. Hydrogenation of Isoprene Over Raney Nickel. by L. Kh. Freidlin, A. A. Balandin, I. F. Zhukova, 5 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 9, 1959, pp 1640-1645.

CB

Sci -
May 61

152,806

The Relation Between Activation Energy and Relative Adsorption Coefficient, by A. E. Agroncmov, A. A. Baladin, Yu. S. Kardashev, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXI, No 4 5, 1960, pp 1120-1122.

CB

149957

Sci

Apr 61

Synthesis of Aliphatic Aromatic Silanes and Their Dehydrogenation, by A. A. Balandin, A. D. Petrov, G. M. Marukyan, 5 pp.

RUSSIAN, per Zhur Obshch, Vol XXX, No 1, 1960, pp 87-90.

CB

Sci

Feb 61

144,094

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Catalytic Dehydrogenation of 2-Ethylthiophene,
by A. A. Balandin, G. M. Marukyan, R. G. Seimovich,
4 pp.

RUSSIAN, per, Zhur Obshch, Vol XXX, No 1, 1960,
pp 321-323.

CB

Sci

Feb 61

144,146

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

The Mechanism of Carbon Formation During Dehydration of Isopropyl Alcohol Over Copper -- Silica Gel Catalyst,
[illegible]

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXIX, No 3, 1959, pp 565-568.

CB

Sci
Oct 60

129,957

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

1. Effect of Molecular Structure on Dehydrogenation Kinetics in the Case of C_2 and C_5-C_9 Alcohols, 5pp.

2. Effect of Molecular Structure on Dehydrogenation Kinetics in the Case of C_4 and C_8 Alcohols, by O. K. Bogdanova, A. P. Shcheglova, A. A. Balandin, 4 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 2, 1960, pp 322-326; 327-330.

CB

Sci

144,304

Mar 61

Mean Bond Energies and their Application in the Calculation of the Heights of Energy Barriers of Catalytic Reactions, by G. I. Levi, A. A. Balandin, 5 pp

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 2, 1960, pp 157-162

CB

145,370

Sci
Apr 61

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Kinetics of Butene Dehydrogenation, by O. K. Bogdanova, A. P. Shcheglova, A. A. Balandin, 6 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXIX, No 6, 1959, pp 1293-1296.

CB

Sci
Oct 60

129,977

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Adsorption of Lower Aliphatic Alcohols on Alumina Catalysts and Orientation of the Adsorbed Molecules, by V. E. Vasserberg, A. A. Balandin, M. P. Maksimova, 5 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXXV, No 4, 1961, pp 858-866.

Cleaver-Hume Press

Sci.

Feb 62

184,795

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Hydration of Aldehydes and Ketones in the Presence of Iron Catalysts, by A. A. Balandin, A. L. Kukina, 11 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 11, 1962, pp 1925-1935.

CB

Sci
Sep 63

3.44,508

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8

Effect of Surface Reduction of Chromium Oxide on Its Catalytic Properties, by A. A. Balandin, I. D. Rozhdestvenskaya, 5 pp.

RUSSIAN, per, Zhur Fiz Khim, No 6, 1960, pp 1336-1344.

Cleaver-Hume Press

Sci

Apr 61

144,494

APPROVED FOR RELEASE: Tuesday, July 01, 2003 CIA-RDP91-00929R000100060025-8